

# WELCOME

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## Public Workshop: Voluntary Accelerated Vehicle Retirement and Voluntary Repair of Vehicles

August 31, 2006  
Cal/EPA Headquarters Building  
Coastal Hearing Room  
9:30 a.m. to 1:00 p.m.

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## Before We Get Started

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- ◆ Webcast communication information
  - Please send questions and comments to:  
Email address: **coastalrm@calepa.ca.gov**

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## Overview

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- ◆ Proposed changes to voluntary accelerated vehicle retirement (VAVR) regulation
- ◆ Proposed Carl Moyer Program Guideline criteria for calculating reductions from retiring high emitting vehicles
- ◆ Proposed Carl Moyer Program Guideline criteria for voluntary repair of vehicles (VRV)
- ◆ Open discussion
- ◆ Next steps

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## Proposed Revisions to VAVR Regulation

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## Approaches Used to Modify VAVR

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- ◆ Be consistent with authorizing legislation
- ◆ Expand program to include new technologies
- ◆ Avoid being overly prescriptive
- ◆ Increase flexibility to administer and operate VAVR
- ◆ Improve clarity and readability of regulation

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## Summary of VAVR Changes

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- ◆ Authorizes optional use of technologies like RSD to identify high emitting vehicles (Section 2610)
- ◆ Authorizes extra emission reduction credits for retiring high emitting vehicles (Section 2608)
- ◆ Returns residency requirement to 24 months from 120 days, per VAVR legislation (Section 2603)
- ◆ Deleted Section 2610, Pilot Program completed
- ◆ Deleted Section 2611, M1 not funding
- ◆ Replaced Appendix D tables with calculation method

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## VAVR Regulation Changes by Section

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- ◆ Section 2601 Definitions
  - 7 new definitions and 6 definitions deleted
- ◆ Section 2602 District Responsibility
  - Concentrated district responsibilities in one location
- ◆ Section 2603 Vehicle Eligibility
  - Residency revised to 24 month from 120 days
  - Tampered vehicles not eligible for VAVR per legislation
- ◆ Section 2604 VAVR Enterprise Operator Requirements
  - Concentrated responsibilities of enterprise operators in one location

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## VAVR Regulation Changes by Section

continued

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- ◆ Section 2605 Offering Vehicles to the Public
    - Changes in acronyms and references
    - No changes to vehicle collector provisions
  - ◆ Section 2606 Parts Recycling and Resale
    - Grammatical, wording, and reference changes
  - ◆ Section 2607 Advertising
    - Acronym and wording changes
  - ◆ Section 2608 Emission Reduction Credits
    - Reorganized requirements
    - Extra emission reduction credits authorized

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## VAVR Regulation Changes by Section

continued

- ◆ Section 2609 Records and Auditing
  - Unrelated subsections were removed
- ◆ Section 2610 Pilot Program
  - Deleted section, program completed
- ◆ Section 2610 Identification of High Emitting Vehicles
  - Authorizes optional use of technologies like RSD to identify potential high emitting vehicles
  - Requires ARB-approved detailed plan prior to program start
  - Lists elements to be included in the high emitter plan
- ◆ Section 2611 Procurement of Credits for SIP Measure M1
  - Deleted section, Measure M1 unfunded

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## VAVR Regulation Appendices Changes

- ◆ Functional/Equipment Eligibility Form
  - Revised Appendix A consistent with proposed regulation
- ◆ Emission/Drive Train-Related Parts List
  - Re-labeling as Appendix B
  - Instructions moved from regulation text to parts list form
- ◆ Quality Control Checklist
  - Re-labeling as Appendix C
- ◆ Calculation of Emission Reductions
  - Re-labeled as Appendix D
  - Replaced emission reduction table with equations used to calculate default emission reductions

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## Responses to Comments - VAVR

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- ◆ Do not specify the number of RSD measurements required to identify a high emitting vehicle
- ◆ Do not specify the time limit between an RSD measurement and the solicitation letter
- ◆ The operation of a high emitting vehicle VAVR program should not be limited to air districts
- ◆ Technology should be limited to only RSD
- ◆ RSD may not be properly implemented
- ◆ RSD cut points may be biased

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## Proposed Carl Moyer Guidelines for Calculating Reductions for VAVR of High Emitting Vehicles

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## Introduction

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- ◆ General approach
- ◆ Changes from concepts presented at June workshop
- ◆ Responses to issues raised at workshop or from comments

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## Vehicle Eligibility

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- ◆ Included provisions outlined at June workshop
  - RSD/high emitter profile/other technologies used as screening tool to identify possible high emitting vehicles
  - Smog Check test required to verify that the vehicle is a high emitting vehicle
- ◆ Added option of two speed idle test for vehicles that cannot be dynamometer tested
- ◆ All other eligibility requirements in VAVR regulation and Carl Moyer Guidelines apply

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## Calculating Emission Reductions

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### ◆ Emission reduction formula

$$= [\text{Emissions}_{\text{ret}} - \text{Emissions}_{\text{rep}}] * [\text{Life}]$$

Where:

$\text{Emissions}_{\text{ret}}$  = Emission rate of retired vehicle \*  
VMT of retired vehicle

$\text{Emissions}_{\text{rep}}$  = Emission rate of replacement  
vehicle \* VMT of replacement vehicle

Life = Credit life

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## Emissions of Retired Vehicle

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### ◆ Emission rate of retired high emitting vehicle

- From retirement date until next scheduled biennial Smog Check, equal to Smog Check measurement (converted from ppm to gram per mile)
- After date of next Smog Check, emission rate equal to Smog Check ASM cutpoint
  - Change from June workshop
- Assume 1 year until next Smog Check

### ◆ VMT of retired vehicle equal to average VMT of model year

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## Emissions of Replacement Vehicle

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- ◆ Emission rate of replacement vehicle
  - Default: equal to “fleet average” emission rate as in current regulation
  - If a LEV-certified vehicle is required, equal average emission rate of model year of LEV purchased
    - Change from June workshop
- ◆ Replacement vehicle VMT equal to retired vehicle VMT
- ◆ Credit life equals 3 years

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## Evaporative Emissions

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- ◆ Evaporative reductions based on methodology for conventional VAVR programs
  - Exhaust high emitters are not always evap high emitters
- ◆ Optional evaporative testing may be conducted to identify high emitters
  - Low pressure fuel evaporative testing equipment in BAR certification process
  - Follow BAR test procedure
  - Vehicles failing test eligible for extra emission reductions
- ◆ Extra emission reductions for high emitters based on pilot studies

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## Particulate Matter (PM) Emissions

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- ◆ PM reductions based on methodology for conventional VAVR programs
  - NOx and ROG exhaust high emitters are not always PM high emitters
- ◆ Smog Check doesn't test for PM and no roadside testing method demonstrated
- ◆ If viable method to identify and measure PM high emitting vehicles, ARB staff would support extra reductions
  - VAVR project plan must detail how PM to be quantified
  - Cannot rely on extra PM emission reductions to show program cost-effectiveness

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## Flexibility for VAVR Programs

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- ◆ At June workshop, many stakeholders commented on need for flexibility in designing programs
- ◆ Proposed guidelines provides this flexibility
  - VAVR project plan must describe unique elements of program
    - Must result in real, surplus, quantifiable, and enforceable reductions
  - VAVR project plan must describe proposed modifications to calculation methodology
  - VAVR project plan subject to ARB approval

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## VAVR Cost-Effectiveness

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- ◆ VAVR programs funded through Carl Moyer Program must meet cost-effectiveness limit of \$14,300 per weighted ton of ROG, NOx, and PM
- ◆ Funds used to identify high-emitting vehicles (e.g. RSD cost) included in cost-effectiveness calculation
- ◆ Administrative costs of running VAVR program not included in cost-effectiveness calculation
  - Outreach, solicitation, data analysis
  - Subject to limits associated with funding source

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## Proposed Carl Moyer Guidelines for Voluntary Repair of Vehicles (VRV) Programs

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## VRV Introduction

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- ◆ Key provisions
  - Emission reductions must be surplus, can't fund repairs that would have happened anyway
  - Systematic diagnosis and repair to ensure durable reductions
  - Consumer protection
- ◆ Overview of requirements
  - Changes from concepts presented at June workshop
  - Responses to issues raised at workshop or in comments

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## Vehicle Eligibility

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- ◆ Vehicle eligibility requirements need to ensure surplus reductions
  - Included all provisions outlined at June workshop
  - Additional provisions
    - Vehicles under warranty not eligible
    - Vehicles registered to businesses, fleets, or non-profit organizations not eligible
  - Other ideas?
- ◆ Districts may impose additional eligibility requirements

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## Repair Requirements

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- ◆ Included repair requirements outlined at June workshop
- ◆ Additional requirements
  - Provisions to ensure systematic diagnosis and repair following standard industry practices
  - Consumer protection provisions
    - All auto repair laws and regulations must be followed
    - District staff or third party to handle complaints
  - Provide districts option of including evaporative and PM repairs

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## Calculating Emission Reductions

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- ◆ Emission reductions
  - Included all provisions outlined at June workshop
  - Evaporative benefits based on ARB pilot study
  - Quantifying PM benefits subject to demonstration of viable measurement method
- ◆ Cost-effectiveness calculations
  - Include costs to identify high emitting vehicles
  - Include costs from diagnoses that don't lead to successful repairs

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## Flexibility for VRV Programs

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- ◆ Proposed guidelines provides flexibility for districts in designing VRV programs
  - VRV project plan must describe unique elements of program
    - Must result in real, surplus, quantifiable, and enforceable reductions
  - VRV project plan must describe any proposed modifications to calculation methodology
  - VRV project plan subject to ARB approval

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## Discussion and Public Comment

Email address: [coastalm@calepa.ca.gov](mailto:coastalm@calepa.ca.gov)

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## Next Steps

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- ◆ ARB continues to solicit your input
- ◆ Written comments by September 22, 2006
- ◆ Regulatory staff report and proposed Carl Moyer Guidelines to be released October 20, 2006
- ◆ Adoption hearing scheduled for December 7, 2006
- ◆ For more information, visit ARB's VAVR website
  - <http://www.arb.ca.gov/msprog/avrp/avrp.htm>

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## Contacts

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- ◆ Please contact the following staff to share your input:
  - ◆ **Andrew Panson** – (916) 323-2881, [apanson@arb.ca.gov](mailto:apanson@arb.ca.gov)
    - Staff Air Pollution Specialist, Innovative Strategies Section
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    - Air Pollution Specialist, Off-Road Section
  - ◆ **John Kato** – (916) 322-2891, [jkato@arb.ca.gov](mailto:jkato@arb.ca.gov)
    - Manager, Innovative Strategies Section
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    - Chief, On-Road Controls Branch

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